

on their strength: the first specimen tried bore at the rate of 440 tons to the square foot, a degree of strength almost incredible in such material. The results of the other experiments were somewhat similar, and all such as to set at rest any fears of the result. In regard to the sufficiency of the foundation itself, although this sustains the whole mass of the building, amounting to 4,000 tons, yet, the weight being spread over the entire area of the solid base, 40 feet square, it does not exceed two tons and a half to the square foot.*

The British Linen Company's Bank, in St. Andrew's-square, is a striking work, notwithstanding objections urged against it in a former page,† and others which occur. A high basement carries six large Corinthian columns, which stand, detached, several feet before the front of the two upper stories, and support six statues. A very fully enriched entablature breaks round the columns, and a level balustrade behind the statues, in a line with the face of the front wall below, terminates the composition. Tried by that canon of art which requires for ornamental enrichment a foundation of usefulness, these columns would of course be condemned. The front, moreover, has a fragmentary effect, seeming rather to be a part of a larger building than a complete structure. In the heads of the windows there are busts and insignia; and the frieze, over each column, contains a sculptured figure.

The interior displays the same amount of richness, and will doubtless be very effective when completed. It presents Corinthian columns and pilasters of polished Peterhead granite, a domical light in centre of ceiling, and very elaborate plaster enrichments. There is an attic above the order ornamented with swags of large flowers, and panels filled with busts and figures in high relief. The whole is paved with encaustic tiles in handsome patterns. The capitals of the columns and pilasters are of cast zinc, bronzed. The pilasters, by the way, might have a better outline: they diminish too much. The frieze of the order is nicely modelled.

The new College of Physicians, Mr. Robert Hamilton, architect, has a handsome staircase: the ironwork is gilt. The marbling and veining of the walls and columns, and the decorations generally, are very good. The meeting-hall has columns, and a very ornate ceiling:—much bolder ornamentation, by the way, is now practised by the Scotch architects than in London.

A new hospital (Stewart's) has been added to the number that already exist in Edinburgh and its suburbs. A citizen named Stewart left 13,000*l.* and some house property, several years ago, to accumulate, to build and endow a hospital for boys of poor but respectable parents. The building is now in course of erection, not far from the Dean Bridge, under the direction of Mr. Rhind, architect. The style adopted by the architect is a mixture of the Scotch castellated dwelling with that of the last period of domestic Gothic. The central

* As to the form of the chimney, Mr. Buchanan said, (as we all know) that in the case of an altitude from 300 to 600 feet, the round form is decidedly to be preferred, as presenting a less effective surface to the wind, whose violent action in this quarter it is important to diminish by every means. The effect of the wind on a cylindrical surface as compared with a square has been calculated by theory in the ratio of two to three. This is the law of resistance so beautifully demonstrated by the commentators on Newton's Principia. Subsequent experiments have proved the effect on the globe and cylinder to be, if anything, rather less than theory, so that we are quite safe in using it at two-thirds: the result is that with 300 tons, for example, acting on a square tower, we have only 200 on the cylinder of the same diameter. The bricks, also, by being moulded to the circle, can be built and bound together with all the strength of the arch. On the lower part of the building, which is less exposed, and to be built of stone, the square and pedestal form are preferable.

† See page 613, ante.

tower has the small outsailling turrets at the angles common in Scotch buildings: the windows are square-headed, divided by mullions and transoms, and the heads of lights are segmental. The towers at the outer angles of the building are disfigured by a small pepper-caster turret on each, fit only to hold a bell on a stable building. The entrance-front has a projecting wing on each side, forming three sides of a square, and the area within is to be inclosed on the fourth side by an arcaded screen, which will stretch from wing to wing. The material used is Binny stone. The contractor is Mr. Hutchison. It is to be regretted that the Scotch architects should mainly adopt the style of the debased period of Gothic architecture for their buildings. With Pointed architecture in its integrity and purity they seem to fear to cope.

Another hospital will be added before long in accordance with the will of a Mr. Chalmers, a plumber, who left 30,000*l.* some time ago to build and endow a hospital for "the sick and hurt."

We described Donaldson's Hospital (also in the Mixed style), with its forest of turrets and vanes, in our previous notice of Edinburgh. It is now completed, with the exception of the ground-work and terrace-walls. The external enclosure next the road consists of a long series of stone piers, rising from a continued plinth, with cornice and obelisk termination, the spaces between them being filled in with a plain iron railing.

The interior of the building does not exhibit any large proportions or architectural elegance, simply, perhaps, because none were required. The boys' dinner-hall is 75 feet by 23 feet, and has a panelled ceiling, grained oak, but it is low and without pretence. There are thirty bed-rooms, which would each hold twelve beds. The chapel, a parallelogram, about 90 feet by 40 feet, has also a panelled ceiling, and is also low. In its present unfinished state the echo is such that no speaker would be audible. To what extent this may be cured by matting, curtains, and the congregation, we are unable to say. It is lighted by a series of windows on each side, filled with stained glass (in patterns) by Mr. Ballantyne, and has an oriel at the extreme end, the lights of which contain representations of the Evangelists and the Virtues, by the same able artist, which would have more brilliancy and sparkle if they had more white glass.

On this building, which is to lodge and educate 300 poor boys, the sum of 140,000*l.* has been expended. A fine monument has been formed—an additional attraction for strangers to Edinburgh, already so rich in attractions; but it is scarcely possible to avoid contrasting the object attained with the size of the structure and consequent expenditure. The interest of 140,000*l.* at 5 per cent. is 7,000*l.* per annum!

Over the entrance doorway is cut the name of the founder, "James Donaldson," and on a panel above that, the name of the distinguished architect of the building, "Edw. Playfair." The directors have further shown their sense of Mr. Playfair's merits by placing his portrait by Sir J. Watson Gordon in the council-room with those of the founder and his family.*

At Greenside, where the Roman Catholics have a convent and bishop's residence, a cathedral and college for parties of the same persuasion are to be built,—the former from a design by Mr. Pugin; the latter from a design by

* Donaldson was born Dec. 1781, and died Oct. 1840.

Mr. Gillespie Graham. The cathedral, we are informed, is to be 350 feet long, and to have a spire 390 feet high. The two buildings are to be connected. The funds required for the erection are said to be 400,000*l.*, more than half of which has already been obtained through large donations and bequests.

In the same quarter, at a place called Loch-rin, public slaughter-houses are to be built shortly. These will take the place of sixty slaughter-houses now scattered over the city, and will include a market for skins. The site is arranged for, but the plans are not yet settled: the commission, however, will probably be entrusted to Mr. Cousins, the city architect.

There would seem to be plenty of work in Edinburgh for the sanitary reformer. Some of the numerous courts and lanes, expressively called *Closes*, opening out of the old streets, seem expressly adapted for the production and spread of pestilence: they are retorts, that distil crime, degradation, disease, and death, and should be swept away, or at all events remodelled, forthwith, at any cost. The inhabitants have a city they may be with reason proud of, and should lose no opportunity to remove the blot that disfigure it.

"NATURAL STYLE" IN MODERN ENGLAND AND AMERICA.

THE very novel view of the "Copyism" question taken last week by Mr. Kerr, led me to anticipate the pleasure of reading to-day the observations it might suggest to your other correspondents, but as none have appeared, perhaps you will allow me (as a humble fellow-labourer in the same cause) to point out, what appear to me, one or two errors in the writer's present position,—one of them, if I mistake not, of some importance.

First, then, but not chiefly, permit me to suggest (merely as a matter of taste) that the gratulatory matter, which forms the main bulk of the manifesto, would have improved by keeping, and have come with better effect after than before the deeds we promise. I am aware, indeed, that in this he truly follows the maxim of the day, which is to bark before we bite; yet I cannot but think that our cause would eventually be better served by a reversal of this rule, and I hope my solicitude for its interests will be an excuse for this suggestion.

It was easily seen (before he told us so) that Newleaf had taken a leaf out of brother Jonathan's book; and that the transatlantic freedom of speech had caught his fancy, and passed with him (as it does with all of us at first) for freedom of thought; but depend on it he will yet come to distinguish these two kinds of liberty, and to see that they are not always proportional. All are freer than ourselves in something; even the Czar's subjects, in access to his palaces. So it is, too, in the world of thought. There are more kinds of freedom and thralldom in it than are dreamt of in Jonathan's philosophy, or ours either. Friend Newleaf has assumed that we have less freedom than these inhabitants of a land without a history; but he will, on further consideration, see that their "freedom of thought" is freedom indeed—from some of the most precious veins of thought, from the due exercise of some of the highest faculties,—that we are, after all, freer than the east or the west,—and if he inquire why, he will yet find that precedent, the object of his wrath,—precedent, itself, is the great enfranchiser. The easterns lock up, neglect, or abuse their precedent (much as we do in architecture), and the westerns have none of their own, and affect to scorn that of others. Our friend would really seem to forget his own maxim, that "we are the true ancients," and to wish us now to throw away the advantages of age, and begin the world anew.

Nor can I agree with him, when, having heard of "sippancy and self-conceit" in our ranks, he would like "not a whit less;" for I do not find any instance of an object similar to ours having received any aid from the exercise of these qualities, but rather hindrance